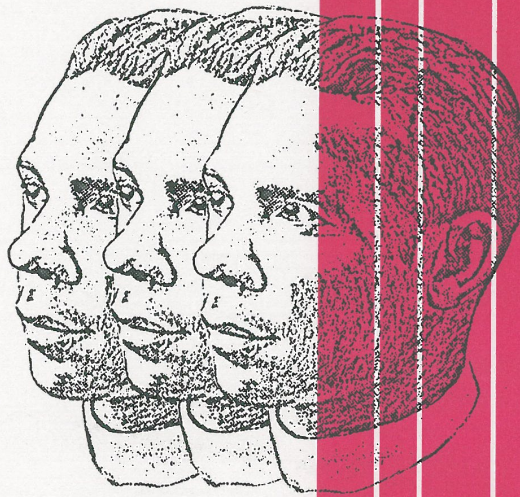


BOOKER T. WASHINGTON REVISITED:

***Reclaiming the
African American Legacy in
Agriculture, Business, and
Technology***



Mattie Evans Gray

March 1989

A Project funded by the
California State Department of Education
Career-Vocational Preparation Division



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Edward O. Minor
Graphic Illustrator

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HISTORICAL OVERVIEW

Prior to the birth of Booker T. Washington, African American people, slave and free, were working in trades and crafts as well as in agriculture. Industrialization in Colonial America resulted in the need to expand the labor supply. Thus slaves were trained and allowed to become a part of the industrial labor force.

In the southern colonies where agriculture dominated, slaves needed to have some mechanical knowledge and skills in order to perform various tasks. For example, the trade of coopering was one of the first to involve slave labor. Coopers produced the casks that were used to prepare crops for market. In addition, slave labor was used to construct and to pilot the small boats that were used to transport crops to market (Stavisky 60).

Some plantations were self-sufficient economic units. In other words, they operated with a slave labor force that included carpenters, blacksmiths, seamstresses, shoemakers, weavers, knitters, barbers, bricklayers, and plasterers (Stavisky 61). Individual workers were, generally, responsible for the production of an item from its first to its last stage. Each craftsman was expected to plan, construct, and decorate, as needed, his own product. In addition, it was necessary to have some knowledge of related crafts. For example, some blacksmiths could produce iron as well as create the tools required by the craft (Stavisky 62). In cities along the Atlantic Coast and in New England slave laborers gained limited recognition for their skills as pipe carvers, upholsterers, furniture manufacturers, jewelers, and silversmiths (Stavisky 62).

Not all of the skilled African Americans were slaves. Some were free, either by birth or as a result of manumission or having escaped. One notable example was Benjamin Banneker who was born free in Maryland. He was credited with constructing the first movable clock ever made in America. In 1762 Banneker, using his watch as a model, assembled a wooden clock that operated for over twenty years (Stavisky 63).

The occupations of free women and men were often those that required individual ability and a measure of independence. For example, some of them were tavern keepers, hotel keepers, milliners, and storekeepers (Wesley 36). Others worked as cabinetmakers, carpenters, upholsterers, and plasterers (Wesley 37-38). Free men and women were engaged in both skilled and unskilled labor. An advantage that they all shared was the right to keep the money they earned. As a result, a number of them were able to accumulate wealth and to own businesses.

Generally, the goals of the conventions were the same: to encourage business ownership or employment in mechanical or agricultural occupations and to promote education for youth in agriculture, mechanical arts, and commerce.

In order to promote mutual support, people of color in the trades, business owners, and church organizations held conventions in several large cities between 1850 and 1856. Generally, the goals of the conventions were the same: to encourage business ownership or employment in mechanical or agricultural occupations and to promote education for youth in agriculture, mechanical arts, and commerce. The Rochester, New York Convention held in July 1853 resulted in a proposal to establish an industrial school in which each student would be required to devote one-half of her or his time to the study of some handicraft or some area of agriculture (Wesley 55-58).

As early as 1847 there was interest in providing industrial education for African American youth. The African Methodist Episcopal Church decided to open a school in Ohio that would educate youth in all useful branches of manual labor. In 1848 a manual labor school was established in Indiana and was chartered by the state (Wesley 59).

Following the Rochester Convention Frederick Douglass published in his newspaper an editorial entitled "Learn Trades or Starve!" Douglass argued that the old occupations which people of color had always pursued were being taken over by newly arrived immigrants; therefore, it was imperative that women and men of color learn new skills in order to survive (Wesley 61).

In summary, prior to the Civil War there was widespread sentiment among free African Americans that education in the trades was the key to economic progress individually and collectively. Thus several years before his birth, the stage was set for Booker T. Washington to share with American society his vision of industrial education.

BOOKER T. WASHINGTON: THE MAN AND THE IMAGE

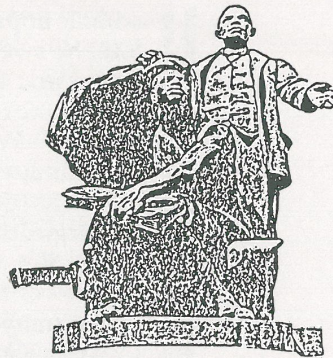
Booker T. Washington was born a slave on a Virginia plantation in 1856. He grew up in extreme poverty and, generally, had to take care of himself. He worked hard all day and slept on a bundle of filthy rags at night. Young Washington was denied any semblance of education, yet in his heart he shared with other slaves a deep yearning to be free and to learn how to read and to write.

His education began after his family gained their freedom and moved to West Virginia. He convinced his mother to find a book for him, and that book, a "blue-back" speller, became a cherished possession. He began the long, arduous process of teaching himself how to read and write while at the same time working at a local salt mine.

When schools were provided for ex-slaves, Washington was eager to attend. Still, it was necessary for him to balance school attendance with his job at the salt mine. The obstacles that he encountered did not deter his efforts to obtain an education. When he heard about a school called Hampton Institute, he made up his mind that he was going to attend that school. He made that decision despite the fact that he did not know how far away it was, how much it would cost, or how he would get there.

Having set his goal, the determined young man eventually began the long five-hundred mile journey to Hampton Normal and Agricultural Institute in Virginia. Along the way he endured hunger, discrimination, and extreme physical exhaustion. He walked many miles; sometimes he became so weary that he begged for rides. From time to time he worked for money to buy food. Dirty, disheveled, and with fifty cents in his pocket, Booker T. Washington arrived at Hampton Institute in the fall of 1872. His first look at the three-story brick building was ample reward for all that he had endured during the long journey.

Washington had no money and no knowledge of what was expected of him; nevertheless, he went to the head teacher and requested permission to enroll in school. She required Washington to take an unusual entrance examination, one that would pave the way for his future success as a student and later as an educator. The head teacher gave him a broom and instructed him to go into the adjoining classroom and sweep the floor. He was quite eager to comply with her request; this was an opportunity to make a fa-



Young Washington was denied any semblance of education, yet in his heart he shared with other slaves a deep yearning to be free and to learn how to read and to write.

The prevailing philosophy at Hampton was that education was meant to prepare one to become self-sufficient not to guarantee an easy life, a life free from the need to do manual labor.

avorable impression and prove himself worthy of admission. Therefore, he swept the floor three times and dusted all of the tables, chairs, and woodwork four times. When the teacher returned to inspect the room, she could not find a speck of dirt or dust. Thus Booker T. Washington had passed his entrance examination. He was admitted to Hampton Institute.

Undergirded by pride and determination Washington completed his studies and graduated with honors in 1875. He derived two special benefits from his experience at Hampton. The first was the opportunity to work and study under the leadership of General S. C. Armstrong, the president of Hampton. The general's commitment to the education and to the moral and economic uplift of the sons and daughters of ex-slaves made a lasting impression on the young student. Later when Washington operated Tuskegee, he emulated General Armstrong.

The second benefit of Washington's Hampton experience was the lesson he learned about the dignity of labor, a lesson that really began on the day that he arrived. The prevailing philosophy at Hampton was that education was meant to prepare one to become self-sufficient not to guarantee an easy life, a life free from the need to do manual labor. Washington's ideas about education and work were greatly influenced by the industrial program provided at Hampton.

After graduating from Hampton, Washington returned to his hometown in West Virginia and taught school there for two years. Then he went away to study for a year at Weyland Seminary in Washington D.C. In 1879 General Armstrong contacted Washington and offered him a teaching position at Hampton. The offer was proudly accepted.

While working at Hampton, Washington demonstrated skill and devotion to his work. As a result, he won the respect of his students as well as that of General Armstrong. Thus when the general received a letter from some Alabama citizens asking him to recommend someone to take charge of a school for Black people in Tuskegee, he did not hesitate to recommend Booker T. Washington. The Alabama citizens followed the general's recommendation and offered the position to Washington. He accepted with much enthusiasm. Now he would have an opportunity to put into practice his philosophy and ideas about industrial training.

Washington went to Tuskegee with somewhat high expectations. He expected to see a building with equipment already in place. What he found was a challenge to secure land, build a building, and purchase the equipment needed to open the school. Washington learned to his dismay that the small appropriation of \$2,000 provided by the Alabama Legislature could be used for teachers' salaries only. He was encouraged, however, by the fact that there

were many earnest students just waiting for the opportunity to attend school. Washington obtained the assistance of local citizens in finding a temporary location for the school. In July 1881 his grateful student body entered their new school, housed in an abandoned church and nearby shanty.

Most of the students came from families who depended on agriculture for their living. Consequently, Washington wanted their studies at Tuskegee to provide practical knowledge that would enable them to return to their plantation districts and earn a living. A large number of the students thought that an education would free them from having to work with their hands. During the course of their stay at Tuskegee, they were convinced that Washington had something quite different in mind for them.

Washington solicited funds from generous donors to assist with the construction of the first permanent building for his Tuskegee Institute. He decided to involve the students in erecting their own building. His purpose was to teach them to love work for its own sake and to provide them with the skills required to construct a building. Washington believed firmly that their involvement would help the students learn self-reliance and develop a sense of pride.

During the first twenty years of the school's existence Washington's policy was to require students to help erect their own buildings as well as cultivate crops to provide their own food. This policy reflected his basic philosophy; in essence, economic self-sufficiency was the foundation for progress and success. Therefore, the Tuskegee experience prepared students to become self-sufficient by emphasizing thrift, ownership of property, industrial education, and the dignity of labor.

Booker T. Washington gained an international reputation as an educator and efficient administrator. He was strongly committed to ensuring that Tuskegee provided the leadership and training that Black citizens needed in order to participate in and benefit from the industrial development that was occurring. The accomplishments of Tuskegee graduates attested to the practical value of the training that the school provided under Washington's leadership. He received numerous invitations to deliver lectures because his philosophy was in tune with the prevailing sentiment in the South regarding economic and industrial development.

Washington's most famous speech was delivered at the Atlanta Exposition in September 1895. Speaking for the first time before an integrated audience of Northerners and Southerners, Washington explained his philosophy and vision for his fellow citizens. He stressed the importance of putting brains and skills into what he called the common occupations of life. He stated that there was as much dignity in tilling a field as in writing a poem. Washington

Washington's policy reflected his basic philosophy; in essence, economic self-sufficiency was the foundation for progress and success.

Privately, he supported direct efforts to eradicate racial discrimination and to secure voting rights for Black citizens.

urged both races to work together to promote progress in the economic and industrial development of the South. The speech not only won him fame but also sparked controversy. Supporters applauded him for praising the virtues of self-help and hard work. Critics labeled his speech the "Atlanta Compromise" because he failed to speak out against the social inequalities that existed in the South at that time.

Booker T. Washington had high regard for landowners and for women and men engaged in business enterprises. He viewed them as tangible evidence of his philosophy in action and as role models for young people to emulate. It was only natural then that he would provide the leadership for the organization of the National Negro Business League. The League, comprised of members from thirty-four northern and southern states, promoted solidarity and mutual support among its members. Washington served as president of the League from its inception in 1900 until his death in 1915.

The public image of Booker T. Washington was that of a man who consistently sought to promote economic self-sufficiency as a means of securing political and civil rights. Privately, he supported direct efforts to eradicate racial discrimination and to secure voting rights for Black citizens. Washington was quite skilled at manipulating the symbols and myths that prevailed in American society during his lifetime. Thus he was successful in securing the financial resources and support that he needed to promote his philosophy and to develop a successful industrial education program at Tuskegee Institute.

CHRONOLOGY OF THE LIFE AND ACHIEVEMENTS OF BOOKER T. WASHINGTON

- 1856 Born in Franklin County, Virginia.
- 1865-71 Worked in salt mines and coal mines, Malden, West Virginia.
- 1871-72 Worked as a houseboy for mine owner.
- 1872-75 Attended Hampton Normal and Agricultural Institute, Hampton, Virginia and graduated with honors.
- 1875-78 Taught school in Malden, West Virginia.
- 1878-79 Attended Weyland Seminary, Washington, D.C.
- 1879-81 Taught at Hampton Institute.
- 1881 Founded Tuskegee Institute, Tuskegee, Alabama.
- 1884 Addressed the National Education Association on "The Educational Outlook in the South."
- 1895 Delivered address at opening of the Cotton States and International Exposition, Atlanta, Georgia.
- 1896 Spoke at Harvard University, Cambridge, Massachusetts and received honorary Master of Arts degree.
- 1898 Made an appeal at the Louisiana Constitutional Convention for an end to Negro disenfranchisement.
- 1900 Organized the National Negro Business League.
- 1901 Published autobiography *Up From Slavery*.
- 1901 Received honorary doctors degree from Dartmouth College in New Hampshire.
- 1907 Conferred with President Theodore Roosevelt about political appointments in the South.
- 1907 Published *The Negro in Business*.
- 1915 Died at his home in Tuskegee.

NATIONAL NEGRO BUSINESS LEAGUE

In keeping with his belief about the roles business women and men could play in promoting social progress, Booker T. Washington decided to try to organize them. In early 1900 he sent out requests to a large number of business owners nationwide to inquire about their interest in joining a business organization. The response was quite enthusiastic; as a result, in August 1900 over 400 delegates met in Boston, Massachusetts and formed an organization that became known as the National Negro Business League.

The delegates came from thirty-four states; however, most were from the South. Many of the delegates had been slaves most of their lives and had struggled to get themselves established in business. The delegates represented a number of the commercial enterprises that were prevalent during that era. Included among the League organizers were real estate dealers, grocers, dry goods merchants, caterers, manufacturers, builders and contractors, bankers, printers, plumbers, restaurant owners, milliners, insurance company owners, and dressmakers.

The organizational meeting was lively but practical. It was agreed that the purpose of the League would be twofold: 1) to encourage business development, and 2) to insure through mutual support that individual businesses would prosper. Members were encouraged to organize leagues on a local level in order to promote the work of the national organization.

A spirit of optimism existed among the organizers. Those who had been free for only thirty-five years were especially proud to share accounts of how they had overcome poverty and other barriers in order to become self-sufficient. The prevailing belief was that success in business would pave the way to social acceptance by white citizens. It was also felt that successful business owners would be role models who could instill in the masses habits of thrift and responsibility. Learning those habits would help the masses of former slaves develop feelings of self-reliance and self-respect.

The League organizers gave recognition to the commitment and influence of Booker T. Washington by electing him to serve as president. The session ended on a note of optimism because it was felt that the National Negro Business League could provide leadership for millions of fellow citizens who were struggling to overcome the effects of slavery, discrimination, and poverty.

The League met annually in various cities, including Chicago, Illinois; Nashville, Tennessee; Indianapolis, Indiana; and New York City. In open session members listened to speakers give vivid accounts of their struggles and achievements. Booker T. Washington took pride in introducing men and women who had started with very limited education and resources but yet went on to set themselves up in some kind of enterprise that made them self-sufficient. Numerous speeches provided practical information on how to develop and operate a small business.

Generally, delegates received a warm welcome from local officials. For example, when the League met in New York City in 1905, letters of commendation were received from both the President of the United States and the governor of New York. Because of public interest in the activities of the League, local newspapers tended to provide coverage of the conventions. Sometimes the newspaper articles were quite congratulatory; sometimes they were harshly critical. The tone of the articles reflected the local sentiment regarding the right of Black citizens to participate in the free enterprise system.

One of the most helpful League programs was National Negro Health Week which occurred in March 1915. The program was organized because of concern about high rates of illness and death and their related costs to families and employers. The health week activities included clean-up committees, health lectures by doctors, health sermons by ministers, and a sanitation project to improve the quality of drinking water springs and wells. The health week program was supported by state and city boards of health, state departments of education, county superintendents of schools, and numerous civic and community organizations.

By the time of the fourth convention, which was held in Nashville, the business interests owned by League members totaled two million dollars. During the first five years of its existence the influence of the League extended into various parts of the country through the work of 230 local leagues. Booker T. Washington was a dominant figure in the League and served as its president until his death.

The organization still exists; however, it is now known as the National Business League. It operates out of its national headquarters in Washington, D.C. and has a membership of 10,000 and an operating budget of \$500,000. It is important to note that among the standing committees is the Council on Women in Business. The National Business League continues the tradition of promoting small business ownership and active participation in America's free enterprise system.

Booker T. Washington took pride in introducing men and women who had started with very limited education and resources but yet went on to set themselves up in some kind of enterprise that made them self-sufficient.

PIONEERS IN BUSINESS

One of the highlights of the annual sessions of the National Negro Business League (NNBL) was the presentation of speeches, testimonials, and exhibits that focused on progress and achievements in business. The following are examples of entrepreneurial efforts that received recognition.

Edward C. Berry. He was forced to leave school when he was sixteen because of the need to support his family after his father died. Young Berry worked in a brick yard, ran errands for a dry goods store, and worked as a waiter in an ice cream parlor. While working at a restaurant, he took advantage of the opportunity to learn as much as he could about catering. Later, he used the skills that he acquired at the restaurant to open his own business. His success as a caterer provided the financial resources that made it possible for him to expand. He opened the fifty-room Hotel Berry in Athens, Ohio in 1878. Mr. Berry was one of the founding members of NNBL and served as its first secretary.

Mifflin W. Gibbs. When he was a teenager, young Gibbs traveled by steamship from New York to San Francisco in 1850. After arriving he worked as a carpenter to pay his room and board and to pay for a set of tools. Later, he set up a shoe shine stand in front of the Union Hotel. He believed that you do not hesitate when you are without choice to accept the most humble and menial employment. He worked hard, saved his money, and eventually was able to invest in a partnership, a firm that imported and sold boots and shoes. Located on Clay Street and known as the Emporium, the firm sold retail and wholesale to customers in Oregon and California. Mr. Gibbs was a delegate to the second NNBL session held in Chicago, Illinois in 1901.

Junius G. Groves. Born a slave in Kentucky, he was largely self-taught but learned to read and write by the time he reached manhood. Mr. Groves migrated to Kansas in 1879; he worked first as a farmhand and then as a sharecropper. In 1887 he began buying farmland. Eventually, he owned 500 acres of some of the finest land in the Kaw Valley of Kansas. Mr. Groves cultivated seed potatoes and fruit orchards that included pears, apples, apricots, and grapes. He distributed potatoes throughout the United States, Mexico, and Canada. The business was so extensive that he secured a private railroad track that led from his shipping station to the Union Pacific Railroad. He became known as the "Potato King" because of the efficiency and productivity of his farming and distributing enterprise.

H. C. Haynes. The son of former slaves, he had to leave school to help support his family. He worked around several hotels in Selma, Alabama shining shoes and selling papers. At the age of fourteen Haynes became a barber's apprentice. In fifteen months he was considered a first-class barber. While working as an apprentice, he conceived of the idea of a ready-to-use razor strop. After he opened his own barber shop, he set up a small laboratory where he worked on his invention in his spare time. After months of diligent work he developed his razor strop and applied for a patent. In 1904 he organized Haynes Razor Strop Company in Chicago, Illinois to produce and market his product. The Haynes razor strop was exhibited at the Indianapolis, Indiana session of the NNBL.

Madame C. J. Walker. She was born in Delta, Louisiana to ex-slave parents who died when she was six years old. She had limited education, married early, and at the age of twenty was a widow with one child. She worked as a laundress to earn a living and provide an education for her daughter. While her hands were busy washing clothes, her mind was busy creating a hair preparation for women. She experimented with her creation on herself and on her daughter. When she was satisfied with the results, she introduced her formula to other women. Gradually, she began to develop and perfect other products that gained wide acceptance. In 1910 Madame Walker built a factory in Indianapolis, Indiana to manufacture and sell her hair products and cosmetics. In addition, she established beauty schools across the country. She was the first African American woman to become a self-made millionaire.



ACHIEVEMENTS IN AGRICULTURE

TWO TUSKEGEE PROFESSORS

John Wesley Hoffman. John Wesley Hoffman was born in Charleston, South Carolina and received his early education there. Years of rigorous study resulted in his receiving a Ph.D. degree in agricultural biology and agricultural chemistry.

Dr. Hoffman was a member of the Tuskegee faculty from 1894 to 1896 and served as director of biology and chemistry. He used his knowledge and skills not only to train students but also to improve the daily existence of his fellow citizens. He worked directly with farmers, organized them into clubs, and gave practical talks on agriculture. Dr. Hoffman urged farmers to purchase their own land and to engage in diversified farming.

He introduced southern farmers to the science of dairying and to the latest techniques in scientific butter making. Dr. Hoffman also introduced a strawberry known as the "Hoffman improved seedling strawberry." It was described in the *St. Louis Journal of Agriculture* as one of the finest in the South. The Hoffman strawberry plant was cultivated not only in the South but also on the Pacific Coast.

One of his experiments demonstrated that tea could be grown in the South. He grew tea in Tallahassee, Florida from seed imported from Japan and India. This research project along with many others won him respect and national recognition.

Dr. Hoffman delivered speeches before numerous scientific societies in the United States and Canada. In 1894 he addressed the annual convention of the Association of American Agricultural Colleges and Experimental Stations on "How Tuskegee Helps the Alabama Farmer."

A role model and source of inspiration to his students, Dr. Hoffman proved that even in his day color was not a hindrance to intellectual achievement.

George Washington Carver. George Washington Carver was born a slave in Missouri. After gaining his freedom he worked as a farmhand in order to obtain a high school education. He was over twenty-five years old when he entered college. Nevertheless, he earned a bachelors and a masters degree in agricultural sciences.

In 1896 Mr. Carver went to Tuskegee Institute to develop and direct the scientific agriculture and dairy science program. He was quite pleased to have the opportunity to work under the leadership of Booker T. Washington. He was quite dismayed, however, when he arrived at Tuskegee and found that the 20-acre school farm was on some of the worst soil in Alabama.

It was obvious to Mr. Carver that he could not use that land to teach scientific agriculture. Thus he and his students engaged in a three-year agricultural experiment that turned the soil into fertile land. He shocked his students when he announced that their first crop would be cowpeas, a plant considered worthless. He demonstrated that cowpeas, a legume, would absorb nitrogen from the air, feed it back into the soil, and thereby help to fertilize the soil.

Professor Carver taught both Tuskegee students and struggling Alabama farmers how to conserve soil through crop rotation. He introduced sweet potatoes, soybeans, and peanuts to farmers who had been limited to the cultivation of cotton. His extensive research demonstrated that these new crops would yield financial benefits and also conserve the soil.

His experiments with the Chinese soybean led to the development of flour, meal, and milk. He published a bulletin that listed over 105 peanut recipes, including mock chicken, bread, ice cream, cooking oil, and margarine. Professor Carver extracted 200 new products from the peanut and 118 practical products from the sweet potato. He gained a national reputation for the development of dehydration, which began as an experiment to preserve sweet potatoes. His research laid the groundwork for future industries in food processing and preservation.



ACHIEVEMENTS OF BLACK INVENTORS

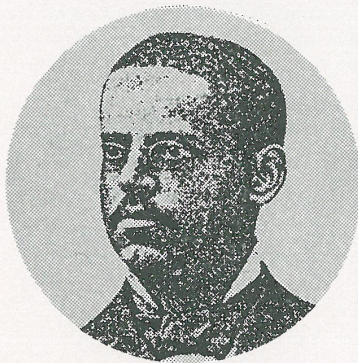
American inventors have made significant contributions to the industrial growth and economic progress of the nation ever since the Colonial Period. Their inventions have touched every facet of daily life. In view of this fact, it is important to note that Black inventors have also been an integral part of the creative genius of America.

The official records of the United States Patent Office, with one exception, have never identified the race of patentees. The exception was Henry Blair of Maryland. Patent records referred to him as a "colored man" when he was granted a patent for a corn harvester in 1834 and a second patent for a similar invention in 1836 (Culp 400).

The first systematic effort to identify Black inventors occurred when the United States Commission to the Paris Exposition of 1900 requested information for use in preparing the Negro exhibit (Culp 402). In order to obtain information on Black inventors, the Commissioner of Patents sent a letter to patent lawyers, manufacturers, Black newspaper editors, and others. Respondents to the inquiry identified over 400 patents that had been granted to Black inventors by the United States Patent Office. In addition, respondents identified several hundred inventors who had to abandon their efforts to secure patents because of the barriers they encountered.

The 400 patents that were identified reflected the occupations and work experience of the inventors. The earliest inventions were agricultural implements and culinary utensils. Gradually, the products of Black inventors began to parallel the industrial trends of the nation (Culp 403).

The following section provides brief descriptions of the work of several prolific inventors in the areas of agriculture and industry.



Lewis H. Latimer. Between 1881 and 1910 he received patents for a water closet for railroad cars, an improved model of the incandescent lamp, a process for manufacturing carbons, and a lamp socket. Latimer prepared the drawing for Alexander Graham Bell's patent application for the telephone. In addition, he was a member of the Edison Pioneers, a group of scientists who worked with Thomas A. Edison. Latimer wrote the first textbook on the Edison electric system.

Jan Matzeliger. He was a pioneer in the development of a method for attaching soles to shoes. His shoe lasting machine, which could turn out a complete shoe, was patented in 1883. Matzeliger's invention revolutionized the Massachusetts shoe industry because it increased production, reduced the price of shoes and improved working conditions in the shoe industry.



Elijah McCoy. Between 1872 and 1899 he patented twenty-six inventions in the field of automatic lubrication. McCoy's first invention, the automatic lubricator, was applied to the steam engine and the steam cylinder. His other inventions were designed for lubricating railroad locomotives and locomotive air brakes. He was known as the "father of lubrication" because his inventions made it possible to lubricate machinery while it is being operated.



George W. Murray. The eight patents he received in 1894 were for farm machinery, including a planter, a cotton chopper, and a fertilizer distributor. Murray was an advocate for industrial education. He used his position as a representative in the 53rd Congress of the United States to promote better schooling for Black youth.



Norbert Rillieux. He invented a vacuum evaporating pan in 1845 that helped to revolutionize the sugar-refining industry. His evaporator process was first introduced in Louisiana where sugar cane was used. Rillieux later developed a process for refining sugar beets. His inventions were used not only in the sugar industry but also in the manufacturing of soap, gelatin, and glue.



Granville T. Woods. His inventions resulted from his interest in the mysteries of electricity. Woods received twenty-one patents between 1884 and 1896. His inventions included telephone instruments, a system for telegraphing from moving trains, an electric railway, and a phonograph.



BLACK INVENTORS: 1872-1930 A SELECTED LIST

<i>Inventor</i>	<i>Invention</i>	<i>Date of Patent</i>
Albert, Albert, P.	Cotton-picking apparatus	April 23, 1907
Ashbourne, A. P.	Refining coconut oil	July 27, 1880
Banks, Charles M.	Hydraulic jack	May 13, 1930
Beard, Andrew J.	Rotary Engine	July 5, 1892
Benjamin, M. E. *	Hotel chair with gong signal	July 17, 1888
Boone, Sarah *	Ironing board	April 26, 1892
Burr, J. A.	Lawn mower	May 6, 1899
Carter, Charles H.	Automatic fish cleaner	Oct. 25, 1921
Certain, Jerry M.	Parcel carrier for bicycles	Dec. 26, 1899
Crothwait, David N., Jr.	Thermostatic steamtrap	Sept. 9, 1919
Davidson, S. J.	Paper-rewind mechanism for adding machines	April 14, 1923
Delotch, Essex	Dining or lunch room serving table	June 6, 1916
Dorcas, Lewis B.	Combination stove, wood, gas or coal	Oct. 15, 1907
Downing, P. B.	Letter box	Oct. 27, 1891
Goode, Sarah E.*	Folding cabinet bed	July 14, 1885
Gousouland, H. P.	Water-heating apparatus	April 4, 1916
Grant, G. F.	Golf tree	Dec. 23, 1899
Harper, Solomon	Electric hair-treating	Mar. 20, 1928
Hilyer, Andrew	Water evaporator attachment for hot air registers	Aug. 26, 1890
Hines, Samuel J.	Life preserver	May 4, 1915
Hunter, J. H.	Portable weighing scale	Nov. 3, 1896
Hyde, R. N.	Composition for cleaning and preserving carpets	Nov. 6, 1888
Jackson, Benjamin F.	Heating apparatus	Mar. 1, 1898
Jackson, Norman	Pneumatic tire	July 12, 1921
Johnson, D.	Grass receivers for lawn mowers	June 10, 1890
Johnson, George M.	Automatic stopping and releasing device for mine cars	Dec. 4, 1917
Johnson, I. R.	Bicycle frame	Oct. 10, 1899
Jones, James C.	Mail-bag transferring device	May 29, 1917

**Pascagoula Public Library
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Washington Family**

<i>Inventor</i>	<i>Invention</i>	<i>Date of Patent</i>
Julian, Hubert	Airplane safety appliance	May 24, 1921
Lavalette, W. A.	Printing press	Sept. 17, 1878
Little, Ellis	Bridle bit	Mar. 7, 1882
Love, J. L.	Pencil sharpener	Nov. 23, 1897
Madison, Walter G.	Flying machine	Dec. 10, 1912
Marshall, T. G.	Fire extinguisher	May 26, 1872
Marshall, W.	Grain binder	May 11, 1886
Morgan, Garrett A., Sr.	Breathing device	Mar. 24, 1914
Newman, L. D.*	Brush	Nov. 15, 1898
Nickerson, W. J.	Mandolin and guitar attachment for pianos	June 27, 1899
Norwood, James P.	Bread wrapping, labeling and sealing machine	July 11, 1916
Parker, Alice H.*	Gas heating furnace	Dec. 23, 1919
Parsons, James A., Jr.	Iron alloy	Sept. 17, 1929
Pickering, John F.	Air ship	Feb. 20, 1900
Purvis, W. B.	Magnetic car balancing device	May 21, 1895
Reynolds, H. H.	Window ventilator for railroad cars	Apr. 3, 1883
Reynolds, Mary Jane*	Hoisting and loading mechanism	Apr. 20, 1920
Richey, Charles V.	Combined hammock and stretcher	Dec. 13, 1898
Robinson, James H.	Life saving guards for street cars	Apr. 25, 1899
Smith, J. W.	Lawn sprinkler	May 4, 1897
Smith, James	Aeorplane	Dec. 17, 1912
Smith, P. D.	Potato digger	Jan. 21, 1891
Spikes, Richard B.	Billard-cue rack	Oct. 11, 1910
Standard, J.	Refrigerator	July 14, 1891
Thomas, S. E.	Waste trap for basins, closets	Oct. 4, 1887
Toland, Mary H.*	Float-operated circuit closer	May 4, 1887
Turner, Madeline*	Fruit-press	Apr. 25, 1916
White, D. L.	Extension steps for cars	Jan. 12, 1897
Williams, Carter	Canopy frame	Feb. 2, 1892
Winters, J. R.	Fire escape ladder	May 7, 1878

* Female inventor

Sources: *Twentieth Century Black Patentees - A Survey*
The Negro Almanac

SUGGESTED ACTIVITIES FOR STUDENTS

The following activities are designed to encourage research projects and career exploration based on the information and resources presented in this publication.

1. Interview Booker T. Washington and write a feature article for your school newspaper.
2. Write a character analysis of Booker T. Washington. Analyze his ability to manipulate language, symbols, people, and situations.
3. Write a news article about Washington's Atlanta Exposition speech. Describe his delivery and the audience's reaction.
4. Read sections of Washington's Atlanta Exposition speech to the class. Respond to questions from the audience (classmates) of supporters and opponents of Washington.
5. Write a report on Blacks in business. Identify areas of concentration and economic trends among Black businesses during the Washington era (1901-1915). Explain how Black businesses of today compare with those of the Washington era.
6. Use the Horatio Alger model (rags to riches) for analyzing the life and accomplishments of a Black entrepreneur.

Suggestions:

Madame C. J. Walker	Berry Gordy
Biddy Mason	Arthur Gaston
Junius G. Groves	John Merrick
William A. Leidesdorff	Mifflin W. Gibbs
Barney Ford	Edward C. Berry
John H. Johnson	Maggie L. Walker

7. Select an invention from the list provided and identify its linkage to an existing product and/or business. Explain how that invention has affected daily life.
8. Make a picture collage of items designed by Black inventors.
9. Make a display of the kinds of products developed by George Washington Carver.
10. Read *Black Enterprise* magazine to learn about modern-day Black entrepreneurs and current opportunities in business.
11. Use the *Occupational Outlook Handbook* to explore careers in agriculture, business, and technology.

ANNOTATED BIBLIOGRAPHY

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A collection of biographies with illustrations.

Baker, Henry. "The Negro in the Field of Invention." *Journal of Negro History*. 2 (1917): 21-36.

A report based on surveys conducted by the U.S. Patent Office in 1900 and 1913 to identify Black inventors.

Culp, D. W., ed. *Twentieth Century Negro Literature*. 1902. New York: Arno Press, 1969.

An encyclopedia of thought on vital topics relating to the strivings and achievements of Black Americans during the 19th century.

Elliott, Lawrence. *George Washington Carver: The Man Who Overcame*. Englewood: Prentice-Hall, 1966.

A biography that recreates the life, struggles, courage, and genius of a great American scientist.

Gibbs, Mifflin Wister. *Shadow and Light*. 1895. New York: Arno Press, 1969.

An autobiography that depicts his life from California shoeshine boy to Arkansas judge, with an introduction by Booker T. Washington.

Harlan, Louis R. *Booker T. Washington: The Wizard of Tuskegee, 1901-1915*. New York: Oxford UP, 1983.

A biographical study that focuses on the complex character of Washington, the most powerful Black public figure of his time.

_____, ed. *The Booker T. Washington Papers*. Vol. 1 Urbana: U of Chicago P, 1972.

A collection of letters and other documents from the Library of Congress that focus on the background and personal life of Washington.

_____, ed. *The Booker T. Washington Papers*. Vol. 2 Urbana: U of Chicago P, 1972.

A collection of letters, speeches, reports, and other documents from the Library of Congress that focus on Washington's public life from 1860-1889.

Hawkins, Hugh, ed. *Booker T. Washington and His Critics: The Problems of Negro Leadership*. Lexington: D.C. Heath, 1982.

Seventeen articles that represent a variety of approaches to explaining the personality, philosophy, and programs of Booker T. Washington.

Hughes, Langston. *Famous American Negroes*. New York: Dodd, 1954.

A collection of life stories that includes Booker T. Washington and George Washington Carver. Contains photographs.

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Kletzing, H. F. and W. H. Crogman. *Progress of a Race: The Remarkable Advancement of the Afro-American*. New York: Arno Press, 1969.
A record of struggles and triumphs designed to elevate the race, with an introduction by Booker T. Washington.

Nichols, J. L. and W. H. Crogman. *Progress of a Race: Remarkable Advancement of the American Negro*. Rev. ed. 1920. New York: Arno Press, 1969.
A record of progress that covers three main topics: education, business, and religion.

Ploski, Harry A. and Ernest Kaiser, ed. *The Negro Almanac* 2nd ed. New York: Bellwether, 1971.
A one-volume repository on African American life and culture that focuses on three main categories: history, biography, and statistics.

Stavisky, Leonard P. "Negro Craftsmanship in Early America". *The Black Americans: Interpretive Readings*. Seth M. Scheiner and Tilden Edelstein, eds. New York: Holt, 1971. 55-65.
Traces involvement of African Americans in crafts from pre-colonial times to late 18th century.

Thornburgh, Emma Lou., ed. *Booker T. Washington*. Englewood Cliffs: Prentice-Hall, 1969.
Presents character and achievements of Washington in three perspectives: through his own words, the opinions of his contemporaries, and retrospective judgments.

Washington, Booker T. *The Negro in Business*. Boston: Hertel, Jenkins & Co., 1907.
An account of successful business owners and a history of the National Negro Business League.

_____. "Opportunity of the Negro in America." *Los Angeles Times*. Feb. 12, 1909, spec. sec III: 5.
An article that encouraged readers to convert obstacles into opportunities.

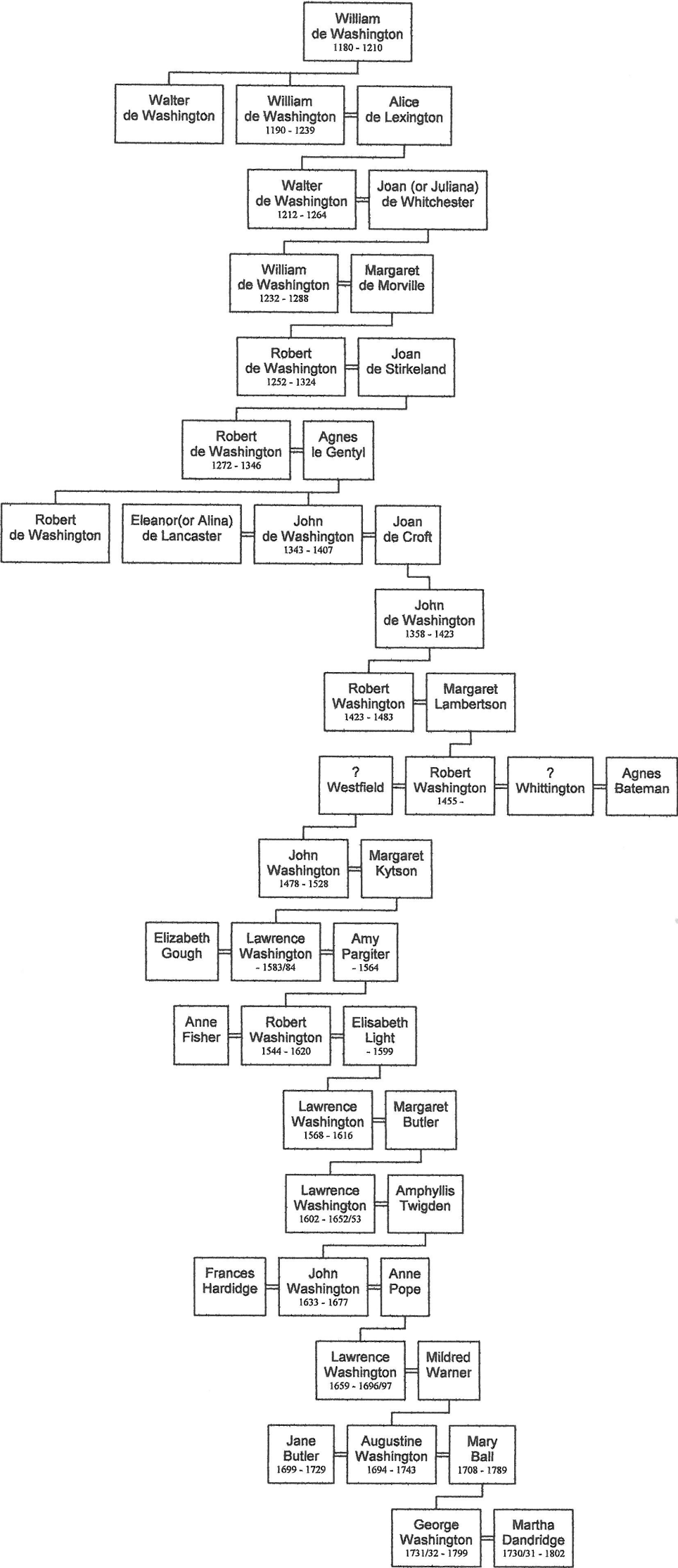
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An autobiography based on a series of magazine articles.

Wesley, Charles H. *Negro Labor in the United States*. New York: Russell & Russell, 1967.
A survey that covers the period of slavery to the industrial revolution.

Yancy, Dorothy C. *Twentieth Century Black Patentees: A Survey*. Washington: ASALH, Inc., 1979.
A resource from the National Afro-American History Kit series.

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Washington Family

Descendants of William de Washington



Also See:

1. *Genealogy of the Lawerence Family*
2. *Lewis of warner Hall - The History of a Family*
3. *Genealogy of the Page Family in Virginia*